WHAT IS CLAIMED IS:

1. A nondetonable one component liquid propellant formulation useful as a monopropellant comprising an aqueous solvent comprising a solution of a selected inorganic or organic oxidizer and a solute comprising a solid oxidizer soluble in said aqueous solvent and a solute comprising a water soluble fuel wherein the solvent/solute ratio is selected to be plus or minus 5% from the stoichiometric point.

2. The liquid monopropellant described in claim 1, wherein said liquid propellant has a freezing point of less than -10°C.

3. The liquid monopropellant described in claim 1, wherein said solution of inorganic or organic oxidizer is selected from the group consisting of hydrogen peroxide, nitric acid, water soluble nitrates and alcohols.

4. The liquid monopropellant described in claim 3, wherein said solid oxidizer soluble in said aqueous solvent is selected from the group consisting of ammonium dinitramide, ammonium nitrate, hydroxylamine nitrate, aminoguanidine dinitrate, and hydrazine nitrate.

5. The liquid propellant described in claim 4, wherein said water soluble fuel is selected from the group consisting of water soluble alcohols, amines and amine nitrates, hydroxyethyl hydrazine, hydroxyethyl hydrazine nitrate, guanidine, cyanoguanidine, aminoguanidine, triaminoguanidine, triaminoguanidine nitrate, aminoguanidine nitrate, guanidine nitrate, ethylenediamine dinitrate, ethanolamine dinitrate, polyvinyl nitrate, polyvinylamine nitrate, aziridine, nitroacetanilide, and tag azide or mixtures thereof.

6. The liquid propellant described in claim 5, wherein said propellant is a monopropellant.

7. A nondetonable substantially environmentally nontoxic liquid monopropellant characterized by freezing point less than -10°C comprising an aqueous solution of an organic or inorganic oxidizer solvent, a selected solid oxidizer solute dissolved in said solvent and a selected water soluble fuel solute miscible with said solvent and oxidizer solution, wherein the solvent/solute ratio is selected to be plus or minus 5% from the stoichiometric point.

8. The liquid monopropellant described in claim 7 wherein said solvent comprises aqueous hydrogen peroxide, said solid oxidizer is selected from the group consisting of ammonium dinitramide, ammonium nitrate, aminoguanidine dinitrate, hydroxylamine nitrate and hydrazine nitrate; and said fuel is selected from the group consisting of water soluble alcohols, amines and amine nitrates, hydroxyethyl hydrazine, hydroxyethyl hydrazine-nitrate, cyanoguanidine, guanidine, aminoguanidine, triaminoguanidine, aminoguanidine nitrate, triaminoguanidine nitrate, ethylenediamine dinitrate, ethanolamine dinitrate, polyvinyl nitrate, and aziridine.

9. The liquid monopropellant described in claim 8, wherein said solid oxidizer is ammonium dinitramide and said fuel is ethanol.

10. The liquid monopropellant described in claim 6, wherein said propellant comprises hydrogen peroxide, wherein said hydrogen peroxide monopropellant is catalyzed to decomposition with a catalyst pack to provid gas g neration and propulsive power.

11. The liquid monopropellant described in claim 6, wherein said catalyst comprises silver, silver oxide, silver permanganate, palladium, platinum, iridium, or mixtures thereof.

12. The liquid monopropellant mixture described in claim 6, wherein said aqueous solvent comprises hydrogen peroxide, said solid oxidizer comprises ammonium dinitramide, and said fuel comprises ethanol and methanol.

13. A liquid monopropellant mixture composed of 70% hydrogen peroxide, ethanol, and water.

Loss A2

Add B2